

In the Claims

1. (Currently Amended) A system for providing web services, comprising:
a plurality of web servers capable of hosting web browsing sessions, each session having session data associated therewith, each web server operable to:
store all of the session data for each session hosted by the web server; and
host each session without accessing session data from a remote location unless the web server is hosting the session for another web server that has failed;
a local director connected to a communications link and to the web servers, wherein the local director routes requests, each associated with a session, from remote browsers to a web server hosting the associated session; and
a remote at least two remote session server servers, each connected to a corresponding one or more of the plurality of web servers, wherein the remote session server contains and operable to store a copy of all the session data for all sessions on all web servers that is stored on its corresponding one or more web servers such that the session data for its corresponding one or more web servers is backed up on the remote session server;
the system operable to, when a particular one of the at least two remote session servers goes down, for each session for which a copy of its session data was stored on the particular remote session server, copy the session data for that session from the web server hosting that session to another remote session server of the at least two remote session servers such that the session data for that session will continue to be backed up on a functioning remote session server.
2. (Original) The system of Claim 1, wherein each web server has a local cache of session data for all sessions hosted on that web server.
3. (Canceled)

4. (Currently Amended) The system of ~~Claim 3~~ Claim 1, wherein each separate remote session server in the at least two remote sessions servers stores session data for a subset of ~~web browsing~~ sessions that does not overlap the subset of any other separate remote session server in the at least two remote session servers.

5. (Currently Amended) The system of ~~Claim 3~~ Claim 1, wherein at least one of the separate remote session servers stores in the at least two remote session servers is operable to store a copy of session data for a subset of web browsing sessions that overlaps the subject of at least one other separate is also stored on at least one other remote session server in the at least two remote session server servers such that the copies of the session data on the at least two remote session servers overlap.

6. (Currently Amended) A method for providing web session services, comprising:

connecting each of a plurality of web sessions to a corresponding one of a plurality of web servers, each web server hosting a plurality of the web sessions;

on each web server, caching all session data for each session hosted on that web server and hosting each session without accessing the session data from a remote location unless the web server is hosting the session for another web server that has failed; and

copying ~~all the~~ cached session data on every each web server ~~to a~~ to one or more of at least two remote session server servers, each remote session server corresponding to one or more of the plurality of web servers and storing a copy of the session data that is cached on its corresponding one or more web servers such that the session data for its corresponding one or more web servers is backed up on the remote session server; and

copying, when a particular one of the at least two remote session servers goes down, for each session for which a copy of its session data was stored on the particular remote session server, the session data for that session from the web server hosting that session to another remote session server of the at least two remote session servers such that the session data for that session will continue to be backed up on a functioning remote session server.

7. (Original) The method of Claim 6, further comprising:

when a web server goes down, transferring the sessions that such web server was hosting to others of the web servers; and

for each transferred session, copying session data for that session from the remote session server to a web server to which the session was transferred.

8. (Canceled)

9. (Canceled)

10. (Currently Amended) The method of ~~Claim 8~~ Claim 6, wherein ~~the selected subsets for the separate remote session servers overlap and~~ the session data for each of the plurality of web-session sessions is copied to at least two different separate remote session servers such that the copies of the session data stored on the at least two remote session servers overlap.

11. (Previously presented) The system of Claim 1, wherein:
when a particular web server fails, the local director is operable to assign the sessions being hosted by the particular web server to one or more different web servers; and
the remote session server is operable provide the session data for the sessions being hosted by the particular web server to the one or more different web servers.

12. (Previously presented) The system of Claim 11, wherein the different web server comprises a standby web server operable to handle sessions of web servers that have failed.

13. (Previously presented) The method of Claim 6, further comprising:
when a particular web server fails, assigning the sessions being hosted by the particular web server to one or more different web servers; and
providing, from the remote session server, the session data for the sessions being hosted by the particular web server to the one or more different web servers.

14. (Previously presented) The method of Claim 13, wherein the different web server comprises a standby web server operable to handle sessions of web servers that have failed.

15. (Currently Amended) Software for providing web session services, the software being embodied in one or more computer-readable media and when executed using a computer system operable to:

connect each of a plurality of web sessions to a corresponding one of a plurality of web servers, each web server hosting a plurality of the web sessions;

on each web server, cache all session data for each session hosted on that web server and host each session without accessing the session data from a remote location unless the web server is hosting the session for another web server that has failed; and

copy ~~all the~~ cached session data on every each web server to a to one or more of at least two remote session server servers, each remote session server corresponding to one or more of the plurality of web servers and storing a copy of the session data that is cached on its corresponding one or more web servers such that the session data for its corresponding one or more web servers is backed up on the remote session server; and

copy, when a particular one of the at least two remote session servers goes down, for each session for which a copy of its session data was stored on the particular remote session server, the session data for that session from the web server hosting that session to another remote session server of the at least two remote session servers such that the session data for that session will continue to be backed up on a functioning remote session server.

16. (Previously presented) The software of Claim 15, further operable to:
when a web server goes down, transfer the sessions that such web server was hosting to others of the web servers; and
for each transferred session, copying session data for that session from the remote session server to a web server to which the session was transferred.

17. (Canceled)

18. (Canceled)

19. (Currently Amended) The software of ~~Claim 17~~ Claim 15, wherein ~~the selected subsets for the separate remote session servers overlap and~~ the session data for each of the plurality of web-session sessions is copied to at least two different separate remote session servers such that the copies of the session data stored on the at least two remote session servers overlap.

20. (Previously presented) The software of Claim 15, further operable to:
when a particular web server fails, assign the sessions being hosted by the particular web server to one or more different web servers; and
provide, from the remote session server, the session data for the sessions being hosted by the particular web server to the one or more different web servers.

21. (Previously presented) The software of Claim 20, wherein the different web server comprises a standby web server operable to handle sessions of web servers that have failed.

22. (Currently Amended) A system for providing web services, comprising:
means for connecting each of a plurality of web sessions to a corresponding one of a plurality of web servers, each web server hosting a plurality of the web sessions;

means for, on each web server, caching all session data for each session hosted on that web server and hosting each session without accessing the session data from a remote location unless the web server is hosting the session for another web server that has failed;
~~and~~

means for copying ~~all the~~ cached session data on ~~every each~~ web server ~~to a to one or more of at least two remote session server servers, each remote session server corresponding to one or more of the plurality of web servers and storing a copy of the session data that is cached on its corresponding one or more web servers such that the session data for its corresponding one or more web servers is backed up on the remote session server; and~~

means for copying, when a particular one of the at least two remote session servers goes down, for each session for which a copy of its session data was stored on the particular remote session server, the session data for that session from the web servers hosting that session to another remote session server of the at least two remote session servers such that the session data for that session will continue to be backed up on a functioning remote session server.

23. (New) The system of Claim 1, wherein a particular web server is operable to:
receive, substantially simultaneously, a plurality of updates to session data stored on the particular web server for a particular session hosted by the particular web server;

queue the plurality of substantially simultaneously received updates;

lock the session data for the particular session while updating the session data with each update in the plurality of updates such that the updates are made serially; and

communicate a copy of the updated session data stored on the particular web server to the remote session server corresponding to the particular web server only after all pending updates to the session data have been made.

24. (New) The method of Claim 6, further comprising:
receiving, substantially simultaneously, a plurality of updates to session data stored on a particular web server for a particular session hosted by the particular web server;
queuing the plurality of substantially simultaneously received updates;
locking the session data for the particular session while updating the session data with each update in the plurality of updates such that the updates are made serially; and
communicating a copy of the updated session data stored on the particular web server to the remote session server corresponding to the particular web server only after all pending updates to the session data have been made.

25. (New) The software of Claim 15, further operable to:
receive, substantially simultaneously, a plurality of updates to session data stored on a particular web server for a particular session hosted by the particular web server;
queue the plurality of substantially simultaneously received updates;
lock the session data for the particular session while updating the session data with each update in the plurality of updates such that the updates are made serially; and
communicate a copy of the updated session data stored on the particular web server to the remote session server corresponding to the particular web server only after all pending updates to the session data have been made.